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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,331	09/18/2002	Andre Garnier	55.0204PCT/US	2397

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EXAMINER

WALKER, ZAKIYA NICOLE

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/914,331

Applicant(s)

GARNIER ET AL.

Examiner

Zakiya N. Walker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 10-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. The preliminary amendment filed 9/18/02 has been entered and an Action on the merits follows.

### *Specification*

2. The abstract of the disclosure is objected to because the term "the invention provides" is recited in line 1. Correction is required. See MPEP § 608.01(b).
3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

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Throughout the specification, applicant lists various prior art, which have not been considered.

5. The disclosure is objected to because of the following informalities:. Applicant should insert section headings.

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if

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the required "Sequence Listing" is not submitted as an electronic document on compact disc).

6. Claims 15-21 are objected to because of the following informalities: Claim 15, line 5, the bracketed term "[Blaine Fineness]" should be deleted. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 10-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not support the methods claimed by this invention. The various well cement compositions have been described in such a way as to enable one of ordinary skill in the art to make the product, however the methods of use as described in the claims are unsupported. For example, it is not clear by the specification whether the foaming is done prior to injecting the slurry in the well, or afterwards.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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10. Claims 15-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. The term "a few" in claim 15 is a relative term which renders the claim indefinite. The term "a few microns" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Villar et al.

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

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the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Villar et al. discloses a method of cementing an oil well or the like, comprising:

- a) forming a cement slurry comprising: cement, a surfactant, and water;
- b) foaming the slurry by introduction of gas; and
- c) injecting the slurry into the well and allowing it to set;

characterized in that the water content of the slurry is less than 50% by volume before foaming.

With respect to claims 11-14, the reference further teaches: forming a cement slurry having a water content of 33% to 45% by volume before foaming; the step of forming the slurry comprises providing a solid fraction is constituted by

a) 35% to 65% by volume particles with an average diameter in the range 200  $\mu\text{m}$  to 600  $\mu\text{m}$ ,

b) 20% to 45% by volume Portland cement, and

c) 5% to 25% by volume particles with an average diameter in the range 0.5  $\mu\text{m}$  to 5  $\mu\text{m}$ ; introducing gas to the slurry such that the foaming quality is in the range 30% to

65%; and including in the slurry one or more additives of the following types: a dispersing agent, an antigelling agent, a water retainer, a cement setting accelerator or retarder, or a de-foaming stabilizer.

14. Claims 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Onan et al.

Onan et al. discloses a method of cementing an oil well or the like, comprising:

- a) forming a cement slurry comprising: cement, a surfactant, and water;
  - b) foaming the slurry by introduction of gas; and
  - c) injecting the slurry into the well and allowing it to set;
- characterized in that the water content of the slurry is less than 50% by volume before foaming.

With respect to claims 11-14, the reference further teaches: forming a cement slurry having a water content of 33% to 45% by volume before foaming; the step of forming the slurry comprises providing a solid fraction is constituted by

- a) 35% to 65% by volume particles with an average diameter in the range 200  $\mu\text{m}$  to 600  $\mu\text{m}$ ,
- b) 20% to 45% by volume Portland cement, and
- c) 5% to 25% by volume particles with an average diameter in the range 0.5  $\mu\text{m}$  to 5  $\mu\text{m}$ ; introducing gas to the slurry such that the foaming quality is in the range 30% to 65%; and including in the slurry one or more additives of the following types: a dispersing agent, an antigelling agent, a water retainer, a cement setting accelerator or retarder, or a de-foaming stabilizer.

15. Claims 10-16, 20, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Griffith.

Griffith discloses a method of cementing an oil well or the like, comprising:

- a) forming a cement slurry comprising: cement, a surfactant, and water;
- b) foaming the slurry by introduction of gas; and
- c) injecting the slurry into the well and allowing it to set;



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characterized in that the water content of the slurry is less than 50% by volume before foaming.

With respect to claims 11-14, the reference further teaches: forming a cement slurry having a water content of 33% to 45% by volume before foaming; the step of forming the slurry comprises providing a solid fraction is constituted by

a) 35% to 65% by volume particles with an average diameter in the range 200  $\mu\text{m}$  to 600  $\mu\text{m}$ ,

b) 20% to 45% by volume Portland cement, and

c) 5% to 25% by volume particles with an average diameter in the range 0.5  $\mu\text{m}$  to 5  $\mu\text{m}$ ; introducing gas to the slurry such that the foaming quality is in the range 30% to

65%; and including in the slurry one or more additives of the following types: a dispersing agent, an antigelling agent, a water retainer, a cement setting accelerator or retarder, or a de-foaming stabilizer.

With respect to claims 15, 16, 20, and 21, the reference discloses a method of cementing an oil well or the like, comprising:

a) forming a slurry comprising a micro-cement having a maximum particle size in the range 6  $\mu\text{m}$  to 12  $\mu\text{m}$ , with a mean particle diameter of a few microns, and a specific surface area per unit weight determined by the air permeability test (Blaine Fineness) of more than 0.6  $\text{m}^2/\text{g}$ , a surfactant, and water;

b) foaming the slurry by introduction of a gas; and

c) injecting the slurry into the well and allowing it to set;

characterized in that the water content of the slurry before foaming is less than 72% by

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volume. The method further teaches forming a slurry having a water content before foaming in the range 58% to 70% by volume, introducing gas to the slurry such that the foaming quality is in the range 30% to 65%, and including in the slurry one or more additives of the following types: a dispersing agent, an antigelling agent, a water retainer, a cement setting accelerator or retarder, or a de-foaming stabilizer.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zakiya N. Walker whose telephone number is (703) 305-0302. The examiner can normally be reached on Tuesday-Friday, 6:30 AM-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Zakiya N. Walker  
Primary Examiner  
Art Unit 3672

ZW  
February 20, 2004